

**BY ORDER OF THE COMMANDER
HQ AIR FORCE FLIGHT TEST CENTER (AFMC)
EDWARDS AIR FORCE BASE CA 93524**

AFFTC INSTRUCTION 11-2

1 APRIL 1998



Flying Operations

GROUND AGENCY OPERATIONS

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This instruction applies to all ground agencies in support of aircraft operations at Edwards AFB.

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SUMMARY OF REVISIONS

All regulations, instructions, forms, and diagrams were reviewed for currency and updated accordingly. This Instruction has been coordinated with and negotiated with AFGE and SATCO. Chapter 1 paragraph 1.2.1 reflects the FLTS/CC vice the 412OG/CC in appointing Task Force Commanders. The 412OG/CC will be aware of these appointments during initial planning. The name of Phillips Laboratory has changed to Air Force Research Laboratory (AFRL) and is changed throughout. Adds maintenance OIC. Paragraph 1.2.2.7 adds Environmental Management in the planning stages. Paragraph 1.3 defines procedures and team composition for Pre-departure Planning. Revised Agreements paragraph 1.3.2, to further define how Edwards accomplishes this task. Paragraph 1.3.3 defines team composition. Paragraph 1.5.3 corrects work hours and pay for civilian employees as negotiated with AFGE. Added new paragraph 1.5.4 to define what contractor personnel must do for deployment. Chapter 2 is re-titled Airfield Operations. Paragraph 2.1 defines the opening/closing of Edwards Tower. Paragraph 2.2 defines who is responsible for determining the active runway and notification procedures. Paragraph 2.4.1 clarifies information passed to the Fire Department for South Base operations. Paragraph 2.5 defines Brake Testing procedures. Paragraph 2.6 defines Alternate Tower Procedures. Paragraph 2.7 define Cooperative Weather Watch Responsibilities. Paragraph 2.8 defines Control Tower Light Gun Signals. Paragraph 2.9 defines the ILS critical areas. Chapter 3 paragraph 3.2.2.3 includes procedures for captive AIM-9 safety devices. Chapter 4, para-

graph 4.3.1, was revised to reflect the current notification procedures. Paragraph 5.1.1.5 includes Flight Surgeon on the Primary Crash System. Paragraph 5.1.3 clarifies when Command Post will activate the Secondary Crash phone. Paragraph 5.2 adds notes stating when the Senior Fire Official will notify Environmental Management for a major fuel spill and a reported or suspected Hydrazine spill. Paragraph 5.2.2.13 adds perceived aircraft high speed aborts to list for activation of the primary crash circuit. Paragraph 5.6.1 adds responsibility for the senior fire official to alert the tower when the emergency has been terminated. Paragraph 5.9 further defines the responsibilities of the SOF. Paragraph 5.10 clarifies when Command Post will check the Alternate Secondary Crash Phone. Paragraph 5.11 defines and clarifies responsibilities in reacting to an ELT. Paragraph 5.14 identifies all hydrazine response areas. (NOTE: There is no primary hydrazine response area.) Chapter 6, paragraph 6.3, reflects 24 hour operations by Base Operations and how they will perform runway checks. Moved Lakebed Runway Conditions to AFFTCI 11-1. Paragraph 6.7 added reference to AFI 13-202 for Overdue Aircraft. Chapter 7, Operations Center (Current Operations/Command Post) paragraph 7.3.2.2, defines personnel who are to be tracked by Command Post. Paragraph 7.3.3 adds information to pass to the MOC on aircraft operations. Chapter 8 reflects only those operations for ground personnel within the PIRA. All pilot requirements were relocated to AFFTCI 11-1, Chapter 8, PIRA and Alpha Corridor Procedures. Paragraph 8.3.3 adds responsibility for tower personnel to restrict access when Mercury Boulevard. is closed. Paragraph 8.3.6 defines Project Engineer responsibilities. Paragraph 8.4.3.6 adds access to 1-36 Pad D for AFRL personnel. Paragraph 8.6 clarifies appointment of qualified pilots as RCOs. Paragraph 8.7 adds definition of AFRL Testing Procedures; adds new figure defining the AFRL sites. Attachment 2 adds maintenance at the 5 Duty Day point. Attachment 3 adds requirements for munitions, maintenance, and classified storage facilities to the Site Survey Checklist; also adds airfield suitability, restrictions. Attachment 4 adds AF Form 315 and 664 to the Sample Trip Kit.

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Chapter 1

DEPLOYED TEST OPERATIONS

1.1. Introduction.

1.1.1. This chapter provides direction for planning, managing and conducting deployed test operations. Flight test operations conducted off-site which require AFFTC aircraft or personnel for support are defined as deployed test operations. This chapter is intended to be a general guide for preparing deployed test efforts. For ARIA, ARIA support fleet, or small off site efforts, the 412 OG/CC may waive the requirements of this chapter with the exceptions of paragraphs 1.6, 1.7, and 1.8. Specific deployment plans should be in accordance with AFI 99-101, *Developmental Test and Evaluation*. Exceptions to this chapter must be part of an approved test plan or otherwise approved by 412 OG/CC.

1.2. Responsibilities.

1.2.1. The Flight Test Squadron (FLTS) Commander (CC) will appoint an individual, in writing, to act as the off-site Task Force Commander (TFC) if the FLTS/CC is not the TFC. A sample is contained in attachment 1. The TFC, in conjunction with the squadron commander, project manager, and maintenance OIC of the applicable Logistics Test Flight, will select a project engineer and maintenance chief for the deployment.

1.2.2. The TFC is directly responsible to the FLTS/CC and project manager for carrying out the assigned mission while at the deployment test site. The TFC:

1.2.2.1. Supervises overall conduct of the total deployed effort to ensure efficient use of available resources to complete test objectives.

1.2.2.2. Assures through proper planning that adequate maintenance, engineering, logistics, security and administrative support is available at the operating location.

1.2.2.3. Assumes responsibility for all matters affecting task force members (e.g. administrative actions, discipline, morale, and personal emergencies) and authorizes civilian overtime needed to meet schedules.

1.2.2.4. Provides a central point of contact for external agencies.

1.2.2.5. Informs 412 OG/CC, normally through the squadron operations officer, of significant test results and unusual occurrences.

1.2.2.6. Assumes responsibility to ensure deployed aircrew are notified of relevant Flight Crew Information Files (FCIFs) and flight manual changes (AFI 11-408, AFMC Sup 1).

1.2.2.7. Assures through coordination with the off-site Environmental Management organization that deployed test operations comply with the requirements of AFI 32-7061, *The Environmental Impact Analysis Process*.

1.2.3. The Project Engineer (PE) is responsible to the TFC for specific test objectives as stipulated in the test plan. The PE:

1.2.3.1. Schedules test objectives as outlined in the test plan based on previous test progress, test aircraft and instrumentation status, weather, and maintenance requirements.

1.2.3.2. Conducts the engineering portions of briefings and debriefings for each flight.

1.2.3.3. Prepares detailed test cards for each mission and reviews aircrew and instrument-recorded data to determine adequacy.

1.2.3.4. Maintains project record files and flight records for each test flight. Prepares test reports if required.

1.2.3.5. Directs the deployed test engineering personnel.

1.2.3.6. Coordinates with the project pilot to ensure all testing is conducted safely in accordance with the Safety Review package (AFFTC FM 5028) including any locally generated requirements (e.g. AFFTC Safety Review).

1.2.3.7. Prepares Deficiency Reports (DR) on problems discovered during test. The PE ensures all DRs are integrated into the FCIF system before submission to the System Program Office.

1.2.3.8. Ensures all Class II modifications are completed IAW AFMCI 21-126, *Temporary Two (T2) Modification of Aerospace Vehicles*, and applicable AFFTC supplements. This includes review by Configuration Control Boards.

1.2.4. The Project Pilot is responsible to the TFC for all inflight phases of the test program. He acts as final authority on flight operations decisions pertaining to weather, established policies, regulations, and safety. The Project Pilot:

1.2.4.1. Conducts the preflight and postflight briefings according to AFFTCI 11-1, Aircrew Operations, emphasizing special procedures at the operating location for communications, ranges and emergencies.

1.2.4.2. Assists the project engineer prepare for test missions.

1.2.4.3. Reviews test cards and flight profile to ensure an efficient flow of test points.

1.2.4.4. Conducts the test flights as outlined in the flight test plan as scheduled by the project engineer.

1.2.4.5. Prepares, for the project engineer, a postflight synopsis of each flight test mission.

1.2.4.6. Plans and conducts ferry flights and functional check flights in support of the test program.

1.2.5. The Maintenance Chief is responsible to the TFC for the accomplishment of required maintenance tasks as well as the management of the maintenance personnel. The responsibility includes assurance of proper maintenance of the aircraft to meet test mission requirements. The Maintenance Chief:

1.2.5.1. Accounts for duty hours of all maintenance personnel and advises the TFC of any requirements for civilian overtime.

1.2.5.2. Provides for control of tools, Aerospace Ground Equipment, (AGE), and other maintenance support items and ensures adequate maintenance of all AGE assigned or on loan to the task force.

1.2.5.3. Ensures accomplishment of test aircraft T.O. compliance including time compliance inspections on the aircraft and aircraft egress systems.

1.2.5.4. Ensures the preparation and dispatch of Deficiency Reports (DR) in accordance with established Maintenance Operating Instructions.

1.2.5.5. Coordinates with necessary AFFTC agencies to develop munitions loading checklists in accordance with AFFTCI 21-1, *Armament and Maintenance Local Checklist Development Program* and AFFTCI 32-5, *Contact of Explosive Ordnance Disposal (EOD) Personnel* if required for the test.

1.2.5.6. Coordinates for the acquisition of equipment, spares, and assets necessary to support maintenance requirements.

1.2.5.7. Supervises the accumulation of Reliability and Maintainability (R&M) data, when applicable, to support test and evaluation objectives.

1.2.5.8. Ensures approved technical orders are available for use or contractor Aerospace Equipment Instructions (AEI) are furnished. Reviews AEIs for compliance with military standards and safety.

1.2.5.9. Coordinates acquisition of munitions in accordance with AFM 23-10, Vol. II, Part 2, *USAF Standard Base Supply Procedures*.

1.2.6. Supply Representative. If the size of the deployment warrants, the TFC will ensure a supply representative is available. If no supply representative is appointed to the deployed test force, the 412 LG/CC or 95 SUPS/CC ensures necessary actions are accomplished. The supply representative is responsible to the TFC for the accomplishment of the supply task/actions. Specific responsibility includes obtaining and maintaining the supply stock necessary to support the test program. The supply representative:

1.2.6.1. Places spares, equipment, stores, and support items not available from the host base on location ready for issue prior to the start of testing.

1.2.6.2. Maintains a supply status list, keeping a record of supplies expended. These records will be available to the PE and TFC and will be submitted to the PE upon test termination.

1.2.6.3. Prepares and properly disposes of DR exhibits. Requests follow-up actions (contractor tear down and analysis reports, etc.) as may be required by the PE.

1.2.6.4. Prepares/assembles the supplies and equipment for return to the home base upon test termination.

1.2.6.5. Prepares a report to the TFC giving a critique of the supply situation during the entire test period.

1.3. Predeparture Planning.

1.3.1. Planning begins with a thorough review of the Detailed Test Plan (DTP), the Safety Review Board (SRB) package, and any available facility guides for the operating location. A predeparture checklist is included in Attachment 2. Predeparture duties include:

1.3.2. Agreements. The TFC establishes contacts with the host base or agency, and with the assistance of other team members, develops any Memoranda of Understanding/Agreement (MOU/MOA) required to support operations at the host base. See AFFTCI 16-2 for guidance on MOUs and MOAs. Resources may not be committed through an MOU/MOA. If resources must be expended, separate

funding documents (i.e. MIPR) must be arranged to provide funds. The Program Introduction Document/Statement of Capability, (PID/SOC) process will be used for aircraft test deployments where the host base uses PID/SOCs.

1.3.3. The TFC selects a team to conduct a site survey, if required. As a minimum the team should include representatives from maintenance, supply and logistics in addition to personnel representing specific test requirements to ensure basic deployment support is adequately planned. This survey, conducted a minimum of two months in advance of the deployment, should ensure the adequacy of facilities at the operating location. Attachment 3 contains a sample site survey checklist.

1.3.4. Deployment Transportation. The 95th Transportation Squadron, Traffic Management Branch (95 TRNS/LGTT), will assist in preparing documentation for shipping (i.e., DD FM 1149). Each unit will prepare the equipment for shipping (i.e., drain/purge).

1.3.5. Trip Kits. The squadron operations and administration sections prepare a "trip kit" containing commonly used operations and administration forms, important regulations and applicable FCIF. A sample trip kit list is contained in Attachment 4.

1.4. Predeparture Briefing.

1.4.1. The deployment of AFFTC assets is a high visibility mission. The following predeployment briefings are required:

1.4.2. The TFC prepares a deployment package to be briefed to 412 OG/CC and to 412 TW/CC or AFFTC supervision. The package includes as a minimum:

1.4.2.1. Task Force Commander and alternate.

1.4.2.2. Task Force personnel.

1.4.2.3. Local points of contact.

1.4.2.4. MOU/MOA or PID/SOC.

1.4.2.5. Schedule for test.

1.4.3. The TFC prepares and conducts a briefing for all members of the deployed test force. This briefing will be held a minimum of two days prior to departure and should include:

1.4.3.1. Task Force Commander and alternate.

1.4.3.2. Task Force chain of command.

1.4.3.3. Mission/test objectives/classification.

1.4.3.4. Schedule.

1.4.3.5. Clothing, uniforms, professional gear.

1.4.3.6. Personal documents.

1.4.3.7. Leave policy.

1.4.3.8. Rental car policy.

1.4.3.9. Emergency notification.

1.4.3.10. Lodging and messing facilities.

1.5. Off-Site Support.

1.5.1. The key to adequate support at deployed locations is careful and complete predeparture planning. The following areas require the most attention:

1.5.2. Maintenance. The maintenance chief is the primary point of contact between the TFC and the maintenance team. It is imperative that relations be established with maintenance agencies at the operating location. The type and level of contacts will depend on such factors as the priority and complexity of the mission, the number of aircraft, the type of support required, and the time sensitivity of the takeoff. It is important to establish maintenance requirements early with the host base. Use the site survey visit to establish contacts and review facilities. USAF Maintenance Precedence and the Force Activity Designator (FAD) for the test program should be indicated in maintenance and support agreements. The maintenance precedence and FAD will affect the priority that the host base assigns to maintaining the task force aircraft.

1.5.3. Civilian Personnel. When civilian employees are included in the deployment, care is required to properly schedule their work hours. In the performance of duties during TDY, management may require civilians to adjust their work hours to support the deployment schedule. Civilian employees are authorized overtime pay for any work in excess of their regular work hours.. Pay will be calculated in accordance with applicable laws, rules, and regulations. Supervisors of bargaining unit employees assigned to deployments should also ensure reasonable rest periods when possible.

1.5.4. Contractor Personnel. Contractor employees must use their company's travel procedures. However, occasionally it may be necessary for them to use government billeting or other government services due to geographic isolation of the proposed test site, work schedules, or situations where separation from the rest of the team is not acceptable. If these conditions exist, it will be necessary to arrange government sponsored orders. Government TDY orders DO NOT take the place of normal company travel requirements or policies. They simply authorize the use of specified government goods or services. Because contractor travel requirements and use of Government goods and services are stipulated by their contract, you should begin this process by contacting the appropriate Contract Administrator at AFFTC/PK.

1.5.5. Lodging and Meals. Maximum use of government facilities should be planned for the deployment. The site survey team should review government facilities for adequacy. In the event facilities are not available or the use of these facilities would impair the performance of duties essential to the mission, the site survey team will locate local lodging for the deployment. The decision to use other than government facilities should be documented and approved by the squadron commander.

1.5.6. Local Transportation. Arrangements will be made for military, GSA, or commercial rental cars at the operating location, if required. The TFC will attempt to prearrange the use of military U-drive vehicles at each military operating location. The standard request will include one vehicle per four individuals. This criterion may vary based on size of available vehicles and specific crew needs.

1.5.6.1. A policy and procedure letter for rental cars is included in the trip kit.

1.5.6.2. The TFC will coordinate with the maintenance chief to ensure that adequate arrangements are made for transporting maintenance personnel between the aircraft and quarters when required.

1.5.7. Security. The TFC is responsible to ensure the security of test assets and test data.

1.5.7.1. The TFC should review AFI 10-1101, *Operations Security (OPSEC) Instructions* and its AFMC supplement. The TFC should also evaluate the security annex of the project DTP for specific procedures for OPSEC and COMSEC.

1.5.7.2. The TFC should designate couriers for classified materials that must be transported to and from the operating location. Details for appointing couriers are outlined in AFI 31-401, *Managing the Information Security Program*. As a minimum, the courier needs a letter of designation which includes a military identification card number and to be briefed in accordance with DD FM 2501, Courier Authorization.

1.6. Deployed Test Management.

1.6.1. Test cards must agree with approved test plans and AFFTC FMs 5028, Test Project Safety Review. Low risk test cards will be signed by the PE and TFC. High and Medium risk cards will be approved by 412 TW/CC and 412 OG/CC respectively.

1.6.2. If the test requires airspace or assets at the operating location, the TFC will ensure that they are scheduled correctly.

1.6.3. The TFC conducts postflight debriefings with flight crews and engineering to review results and contacts squadron supervision of significant test results. The TFC will make a daily report to the FLTS/CC or 412 OG/CC if a telephone is available.

1.6.4. The PE assures that status reports to the test squadron commander and project manager are dispatched as directed.

1.7. Flight Operations.

1.7.1. The following command and control procedures are a minimum for flight operations. They can be expanded or modified by an approved test plan or SRB.

1.7.2. Flight Orders, AFMC FM 82 or 83 should be prepared for each deployed sortie and signed by the TFC. In the absence of a TFC, the aircraft commander will clear the flight through the applicable AFFTC squadron operations section.

1.7.3. Conduct a preflight mission brief in accordance with AFFTCI 11-1. The squadron operations section will keep the TFC informed of FCIFs affecting the deployed team.

1.7.4. File a DD FM 175, **Military Flight Plan**, or appropriate flight plan.

1.7.5. Flight-follow the deployed missions by radar and radio when possible. When flights will be conducted out of radar and radio coverage, brief specific departures and return procedures to the flight-following agency.

1.8. Deployed Emergencies.

1.8.1. Aircraft Mishaps. Report as required by AFI 91-204, Investigating and Reporting US Air Force Mishaps. The TFC will ensure that the safety office at the deployed location and the squadron operations officer are notified in a timely manner. After hours and on weekends, pass this information through the Edwards Command Post, 95 ABW/CP (ext. 73040).

1.8.2. Personnel Emergencies.

1.8.2.1. Physical. If an individual is injured or develops a physical emergency, take the person to the nearest adequate medical facility for treatment. As soon as practical, relay this information to the squadron operations officer. After hours or on weekends, pass this information through Edwards Command Post. Notify host base safety as required. Mission impact must be quickly evaluated and actions taken to minimize degradation. In no case is a person to fly on deployment aircraft with a debilitating illness.

1.8.2.2. Legal. The TFC's function in legal problems incurred by deployment personnel is the same as if he were that person's supervisor at home station. If a person is incarcerated, the squadron commander will be notified. After hours or on weekends pass information through Edwards Command Post.

1.8.2.3. At Home Emergencies. Notify the FLTS/CC of any personnel who must return home because of emergency in the family. Evaluate mission impact and take action to minimize degradation (e.g. request replacements, change work schedules, etc.).

1.9. Post Deployment Report.

1.9.1. The TFC submits a trip report to the 412 OG/CC within five days of the deployment's return (does not apply to ARIA/support fleet or Speckled Trout). The purpose of this report is to document significant test results, identify problem areas and report on lessons learned.

Chapter 2

AIRFIELD OPERATIONS

2.1. Opening/Closing Edwards Tower.

2.1.1. When the Control Tower opens/closes, the Watch Supervisor will contact Base Operations and/or CONFORM, as appropriate, to obtain/provide an airfield status briefing. This briefing will include as a minimum the runways' status and vehicles (callsign and location) within the movement area. All parties involved are responsible for ensuring the accuracy of the briefing.

2.2. Active Runway Designation.

2.2.1. Tower is responsible for determining the active runway most nearly aligned with the wind.

2.2.2. Main base Rwy 22 is designated as the preferential runway. It will be used as the active runway when the tailwind component is 10 knots or less.

2.2.3. The Supervisor of Flying (SOF) or designee, will specify the runway in use when notified by tower of conflicting wind information.

2.2.4. During winter operations, when low afternoon sun angles present visibility problems, the SOF, during periods of routine AFFTC flight activity, may designate Rwy 4 the active runway from 1500 PST until sunset unless the tailwind component exceeds 10 knots.

2.2.5. Normally, use of other airfield runways are based on the main base "active" runway; i.e. if Rwy 22 is active, then South Base will use Rwy 24 and Lakebed Rwy 23 and 24, or those most nearly aligned with the "active," runway.

2.2.6. During a runway change, Tower shall:

2.2.6.1. Advise aircraft on tower ATC frequencies (except 121.5 and 243.0) of the impending runway change.

2.2.6.2. Include this advisory on the ATIS broadcast.

2.2.7. SPORT shall advise aircraft on ATC/mission frequencies of the impending runway change.

2.3. Advance Flight Notifications.

2.3.1. If requested, tower will provide Base Operations a single (one time) notification for an aero-medical flight or an aircraft carrying a distinguished visitor when the aircraft is 9-15 flying miles from the runway.

2.4. Fire Department Notification Of Aircraft Operational Traffic At North/ South Base.

2.4.1. Tower makes every effort to notify the Fire Communications Center of aircraft operations being conducted at North and/or South Base. Tower will do this in a expeditious manner, but will not jeopardize flight safety or delay higher priority instructions in order to make this notification. Notification will include type aircraft and type operation (arrival, departure, multiple operations, quick turn, etc.)

2.4.2. Notify the Fire Communications Center when operations are terminated or the aircraft has departed the area.

2.5. Brake Testing.

2.5.1. Brake Testing Notification. Center Scheduling is responsible for notifying the appropriate agencies identified by the AFFTC FM 5016, **Weekly Aircraft and Air/Ground Support Requirements Schedule**, concerning any scheduled brake test.

2.5.2. Center Scheduling will coordinate any schedule changes prior to the day of the test. If changes are to be made on the day of the test, Current Operations will notify the appropriate agencies.

2.5.3. The Base Operations Dispatcher is responsible for alerting the runway sweepers whenever a brake test is scheduled.

2.6. Alternate Tower Procedures.

2.6.1. The alternate tower will not be used to control active traffic during evaluations or exercises. When tasked during evaluations or exercises, the alternate tower will be set up as an alternate tower, however, actual control instructions will continue to be provided from the primary tower.

2.6.2. All vehicle operations on the lakebed will be terminated.

2.6.3. Base Operations and the Fire Department will provide a Ramp and Crash FM radio and charger, respectively.

2.6.4. Airfield lighting personnel are responsible for turning on/off and adjusting settings of the airfield lighting systems as requested when the alternate control tower is activated.

2.7. Cooperative Weather Watch Responsibilities.

2.7.1. Edwards is a Basic Weather Watch (BWW) station. Time and controller workload permitting, certified tower controllers will advise the duty observer of:

2.7.1.1. Any observed differences between current weather and the official observation.

2.7.1.2. Significant increases or decreases in prevailing visibility. When either Tower prevailing visibility or reported prevailing visibility is less than four (4) SM, immediately report any change in a reportable value of visibility to the duty weather observer.

2.7.1.3. Formation of fog, thunderstorms, funnel clouds, or tornadoes.

2.7.1.4. Lightning/hail observed, thunder heard, or ending/beginning of precipitation.

2.7.1.5. Any obstruction to vision observed but not currently reported.

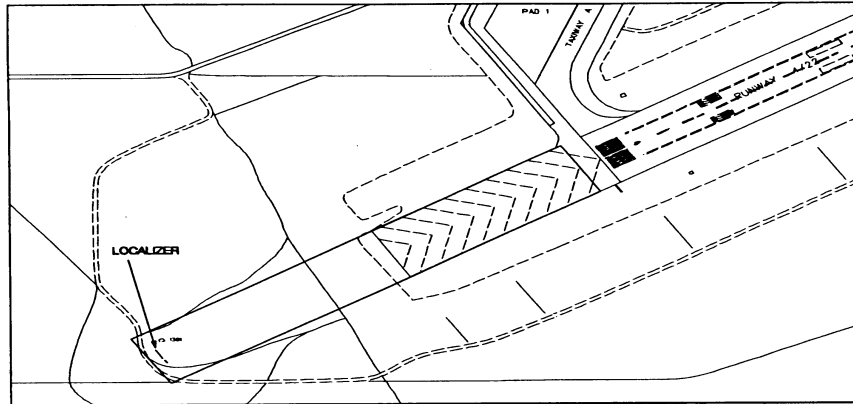
2.8. Control Tower Light Gun Signals.

2.8.1. In the event Tower experiences radio failure or cannot establish radio contact with a vehicle on the Main Base Runway, the Tower will turn the runway light on/off at Step 5 several times (flash runway lights) and contact Base Operations/Airfield Management via landline/Ramp Net to initiate recall action. Once notified, Base Operations/Airfield Management will dispatch a radio equipped vehicle to escort the NO RADIO (NORDO) vehicle from the movement area and determine the reason for lost radio communications.

2.9. Instrument Landing System (ILS) Critical Areas.

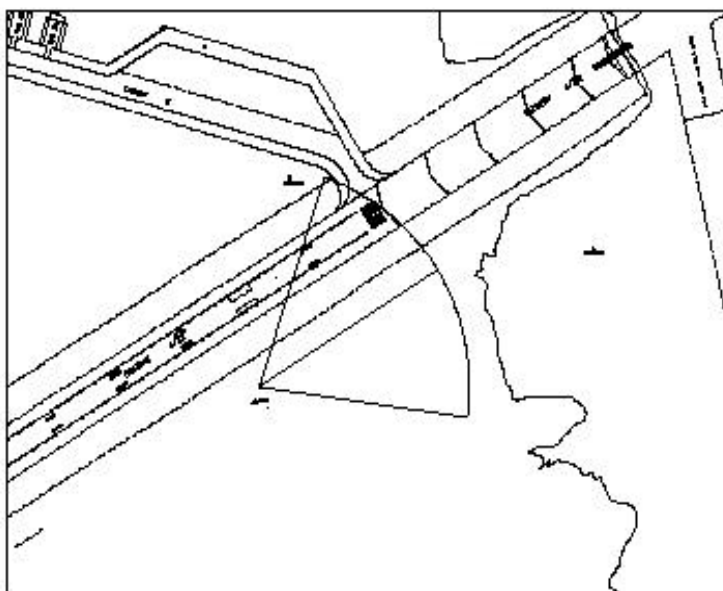
2.9.1. The localizer (Fig 2-1) critical area extends from the localizer antenna 2,000' toward the approach end of the runway and 150' on each side of the runway centerline. It includes a 50' extension behind the localizer antenna.

Figure 2.1. Localizer Critical Area



2.9.2. The glide slope critical area (Fig 2-2) is a fan-shaped area which extends from the glideslope antenna 1,300' toward the approach end of the runway (or the end of the runway, whichever is greater). It covers an area 40× each side of a line drawn through the glide slope antenna and parallel to the runway centerline.

Figure 2.2. Glide Slope Critical Area.



Chapter 3

LAST CHANCE AIRCRAFT SAFETY INSPECTION

3.1. Policy.

3.1.1. The Commander, 412th Logistics Group (412 LG/CC) ensures teams are available to perform last chance aircraft safety inspections. The base operations officer is responsible for advising transient pilots of the service available and procedures of this regulation. 412th Equipment Maintenance Squadron (412 EMS) Operating Instruction 21-31 is the detailed directive for *Last Chance Aircraft Safety Inspections*.

3.2. Inspection Area.

3.2.1. During normal daily flying periods, the Transient Alert Branch (412 EMS/LGMSBT) safety inspection team will be positioned at the last chance area. For planning purposes, the normal duty-in-place time for the last chance team will be from 0600 to 2200.

3.2.2. For armament loaded aircraft carrying live or forward firing ordnance, the crew chief will do the last chance inspection in the final arming area of the hotgun line. (When only inert/training ordnance is carried, this inspection can be done in the last chance area by the last chance team, however, armament personnel are required to remove armament safety pins.)

3.2.2.1. After armament is loaded, taxi the aircraft to the designated final arming area.

3.2.2.2. Aircraft crew chief will perform the inspection.

3.2.2.3. Armament personnel will remove armament safety pins. The aircraft crew chief will then clear the aircraft for taxi. (Exception: Captive AIM-9 missile safety devices and gear may be removed and reinstalled by qualified personnel at designated aircraft parking spots or last chance inspection.)

3.2.2.4. The aircraft crew chief will advise safety inspection teams positioned at the last chance area of those aircraft carrying armament.

3.2.3. During other than the normal flying period (after 2200, weekends or holidays), 412 EMS/LGMSBT will provide last chance inspection for transient aircraft, when requested. The owning flightline section will perform the inspection for base assigned aircraft.

3.3. Maintenance Responsibilities.

3.3.1. The last chance inspection vehicle or area will be occupied by qualified maintenance personnel and will be in position when single and twin jet engine aircraft (except helicopters, T-39s and like types) are flying, and as scheduled by 412 LSS/LGLOM, MOC.

3.3.2. The pilot will be directed to stop at the safety inspection site. The inspector will chock one main gear and perform the inspection as required per inspection guides which will be tailored to the specific aircraft type. Inspectors will normally use standard hand signals to communicate with the pilot. Interphone will be employed, when available, if problems or unusual conditions occur.

Note: Last chance team members will exercise extreme caution at all times to prevent personal injury. Inspection will not begin until the aircrews' hands are visible to the last chance marshaller; terminate

immediately if the aircrews' hands are returned to cockpit. The inspection will be accomplished in accordance with the applicable technical data. Headsets and cords are available for most aircraft.

3.3.3. Inspection will be from the ground only. General inspection items will be:

- 3.3.3.1. Pins and covers removed.
- 3.3.3.2. Fluid leaks (fuel, hydraulic, oil).
- 3.3.3.3. Tires for cuts, leakage, etc.
- 3.3.3.4. Loose or missing panels.
- 3.3.3.5. Struts for proper extension.
- 3.3.3.6. Any obvious miscellaneous defect (control misalignment, etc.).

3.3.4. Marshaller will remain positioned at left front of aircraft while the second inspector chocks aircraft, when directed, and performs visual walk-around inspection in the following sequence.

Note: Observe standard safety practices in relation to performing maintenance or inspections around an operating jet engine aircraft.

- 3.3.4.1. Chock left main gear, or right gear as appropriate.
- 3.3.4.2. Inspect left main strut area and left side of aircraft and tail area.
- 3.3.4.3. Inspect left wing area.
- 3.3.4.4. Inspect nose area.
- 3.3.4.5. Inspect right wing area and right strut.
- 3.3.4.6. Inspect right side of aircraft and tail area.
- 3.3.4.7. Proceed back around right wing, advise marshaller of status and get in position to remove chocks at direction of marshaller.
- 3.3.4.8. The marshaller will signal to move aircraft forward approximately 12 to 24 inches.
- 3.3.4.9. Chock aircraft and again check tires for cuts and condition.
- 3.3.4.10. The marshaller will indicate when it is safe for arm/dearm personnel to start arm/dearm procedures.

3.3.5. Upon completion of the inspection (Last Chance and Arm/Dearm), the marshaller will advise the pilot that the aircraft is in a safe maintenance condition (thumb up - go), or that a discrepancy has been found that cannot be corrected on the spot (loose screw tightened, pin or cover removed, etc.) which is of a nature serious enough to jeopardize the flight (thumb down - no go). If the aircraft is suitable for flight, the marshaller will give the "hold brakes" sign to the pilot who will acknowledge by a head nod or by giving the "OK" sign. The marshaller will then give the "chocks pulled" signal, thus freeing the aircraft for taxi.

3.3.6. If the aircraft is not suitable for flight, the inspection team will call the MOC for specialist/crew chief assistance at the inspection point on a "Red Ball" priority.

3.3.7. When serious on-the-spot uncorrectable discrepancies are noted, the pilot will shut down the aircraft upon direction from the marshaller. The marshaller notifies the MOC and the flight line expeditor of such action by the use of the Maintenance Radio Network "A."

Chapter 4

GROUND OPERATIONS INVOLVING MUNITIONS

4.1. Munitions Loaded Aircraft.

4.1.1. Aircraft with munitions loaded or being loaded will be parked in accordance with the following guidelines:

4.1.2. Load inert munitions whenever space allows safe movement of loading and handling equipment.

4.1.3. Aircraft loaded or being loaded with Class/Division 1.4 munitions may be parked in the following locations:

4.1.3.1. Authorized Ramps and Pads are underlined as shown in Figure 4-1.

4.1.3.2. Main Ramp, Rows A through G (Fig 4-2).

4.1.3.3. Base Operations Transient Parking (Fig 4-2).

4.1.3.4. Ramp 2 (TPS).

4.1.3.5. Engine run-up pads on Taxiway A.

4.1.4. Impulse cartridges used in stores release systems may be installed/removed in any safe location outside of maintenance hangars except Ramps 4 or 5, or Pad 7.

4.1.5. Aircraft loaded or being loaded with Class/Division 1.3 pyrotechnics may be parked in any location designated in Figure 4-1 and Ramp 1, Rows A through G (Fig 4-2). When dispensable flares are being loaded/unloaded, the parking spot(s) adjacent to the spot(s) being loaded/unloaded will be empty.

4.1.6. Aircraft loaded or being loaded with Class/Division 1.2 and 1.1 munitions will be parked as indicated in Figure 4-3.

4.1.7. Aircraft loaded with forward firing munitions will be armed or dearmed as indicated in Figure 4-3.

4.2. Normal Munitions Loading Procedures.

4.2.1. The munitions load crew chief will be in complete control during all ordnance handling operations.

4.2.2. Do not carry out ordnance loading, unloading, arming or de-arming without approved checklists or technical data.

4.2.3. Deviations from established and approved procedures are not authorized unless approved in writing by the Directorate of Safety, Weapons Safety Division (AFFTC/SEW).

4.2.4. During explosive loading and unloading operations, extensive maintenance not associated with the explosive operation will not take place. The weapons load crew chief is in charge of the aircraft during explosive operations.

4.3. Diverted Munitions Loaded Aircraft.

4.3.1. Edwards Tower will notify Base Operations of any known, non-emergency, aircraft diversions into Edwards which are carrying munitions. Base Operations will notify agencies as required. Forward type, quantity of munitions, and stations loaded when provided by the pilot. Paragraph 4.1.1 above will be used as a guide when parking diverted or transient aircraft.

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Figure 4.1. Contractor's Row Ramp and Pads.

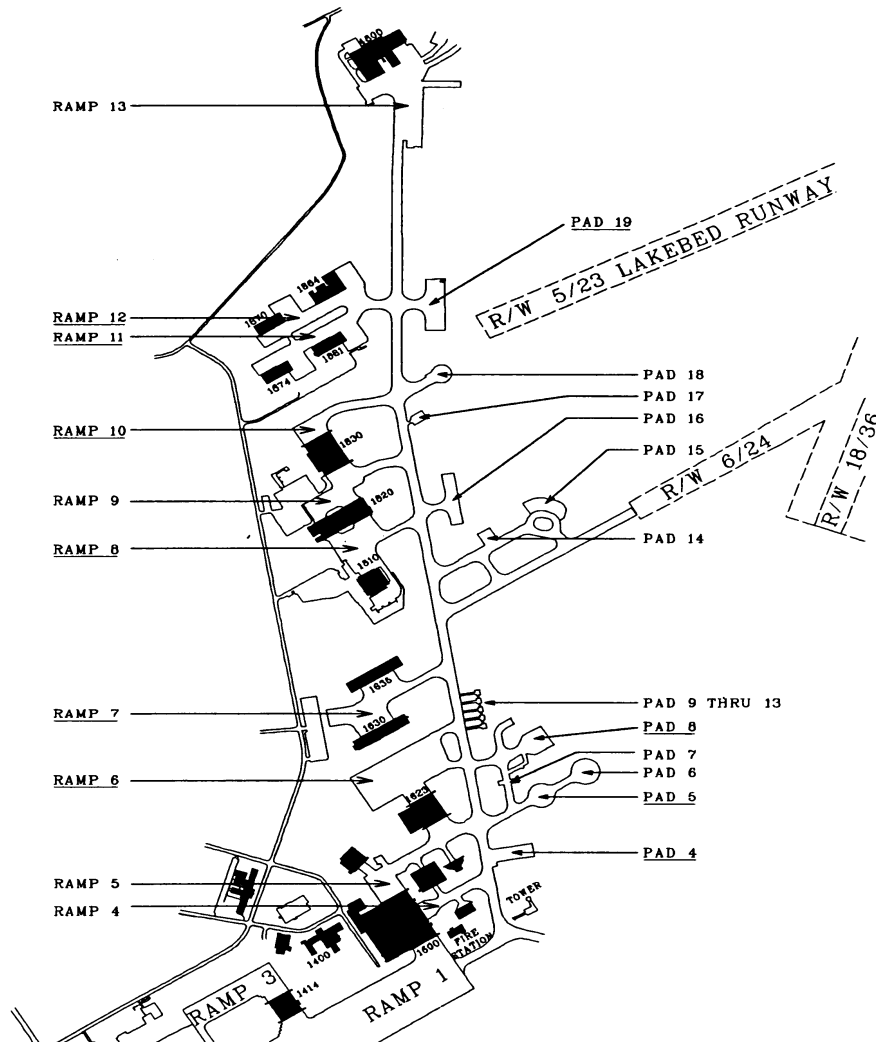


Figure 4.2. Main Ramp.

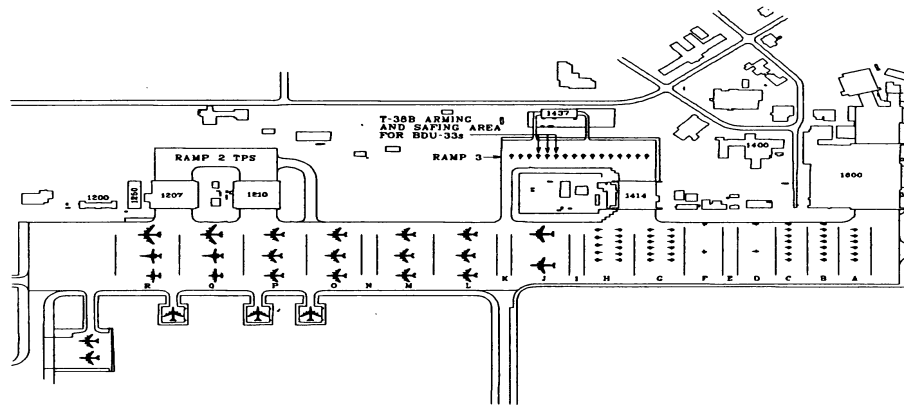
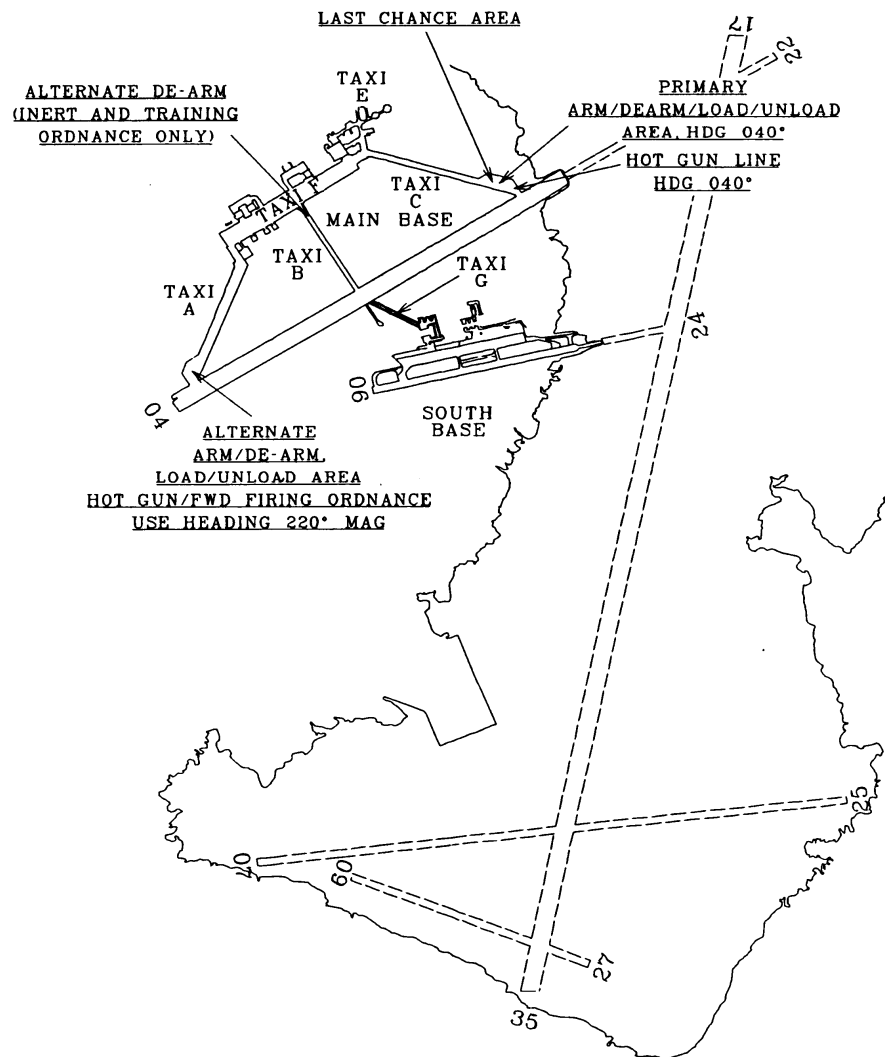


Figure 4.3. ARM/DE-ARM Areas.



Chapter 5

EMERGENCIES (PRIMARY CRASH ALARM PROCEDURES)

5.1. Crash Alarm Systems.

5.1.1. Primary crash phone. The control tower activates this system consisting of the following agencies:

- 5.1.1.1. Control Tower.
- 5.1.1.2. Base Operations.
- 5.1.1.3. Fire Department.
- 5.1.1.4. Hospital.
- 5.1.1.5. Flight Surgeon.
- 5.1.1.6. Command Post (receive only).
- 5.1.1.7. SPORT (receive only).

5.1.2. Secondary crash phone: Base Operations activates this system consisting of the following agencies:

- 5.1.2.1. Test Wing Commander.
- 5.1.2.2. Operations Group Commander.
- 5.1.2.3. Air Base Wing Commander.
- 5.1.2.4. Command Post.
- 5.1.2.5. Security Police.
- 5.1.2.6. Flying Safety.
- 5.1.2.7. Maintenance Operations Center.
- 5.1.2.8. Fire Marshall.
- 5.1.2.9. Disaster Preparedness.
- 5.1.2.10. EOD.
- 5.1.2.11. Crash Recovery.
- 5.1.2.12. Weather.

5.1.3. Secondary Crash Phone. Command Post only activates this system when Base Operations is unable to activate.

5.2. Activation Of The Crash Alarm Systems.

5.2.1. The primary and secondary crash phones are for dissemination of emergency information only. Emergency information requires immediate and wide spread dissemination to protect/preserve life, limb, and/or property.

5.2.2. Situations requiring activation of the primary crash circuit are as follows:

5.2.2.1. Emergencies declared by the aircraft commander or other competent authority.

5.2.2.2. Emergency fuel aircraft.

5.2.2.3. NORDO aircraft (transmitter and receiver) when it cannot be determined whether or not any other malfunction exists.

5.2.2.4. Reported or suspected hot brakes.

5.2.2.5. Unauthorized aircraft movement/hijack.

5.2.2.6. Aircraft bomb threat.

5.2.2.7. On/off base accidents/forced landings of aircraft, including suspected incidents. Forward off-base, non-DOD, aircraft accidents/forced landings to High Desert TRACON and/or Los Angeles ARTCC for implementation of search and recovery procedures.

5.2.2.8. Major fuel spills (when requested by competent authority).

Note: Senior Fire Official will notify Environmental Management Office and appropriate Hazardous Material Response Force Members of the spill IAW current Base Spill Response Plan.

5.2.2.9. Reported or suspected Hydrazine spills.

Note: Senior Fire Official will notify Environmental Management Office and appropriate Hazardous Material Response Force Members of the spill IAW current Base Spill Response Plan.

5.2.2.10. Exercises. IAW AFI 13-203, Air Traffic Control, exercises which involve any ATC facility or the airport movement area will be coordinated as far in advance as possible with the Airfield Operations Flight Commander (AOF/CC)

Note: The control tower will participate only as long as events do not interfere with ATC services or jeopardize flight safety.

5.2.2.11. Updates of emergency situations.

5.2.2.12. Evacuation of control tower. (Tower evacuates when the wind velocity reaches a sustained speed of 80 mph/70 knots or gusts up to 100 mph/87 knots).

5.2.2.13. Perceived aircraft high speed aborts.

5.2.3. The control tower relays emergency information verbatim as prescribed in FAA Order 7110.65, "Air Traffic Control." Essential information for relay, if known, includes:

5.2.3.1. Type emergency (inflight/ground).

5.2.3.2. Aircraft identification and type.

5.2.3.3. Nature of emergency.

5.2.3.4. Pilot's desires.

5.2.3.5. Fuel remaining in time.

5.2.3.6. Personnel on board.

5.2.3.7. Landing runway.

5.2.3.8. Aircraft position (grid coordinates as applicable).

5.2.3.9. Estimated time of arrival.

5.2.3.10. Hazardous cargo/armament.

5.2.4. All information received over the primary crash phone will be relayed verbatim by Base Operations over the secondary crash phone system.

5.2.5. The control tower forwards all emergency termination's to Base Operations using landline.

5.2.6. Crash phone answering procedures: Personnel responsible for answering the crash phone will:

5.2.6.1. Pick up the receiver and listen - do not say anything.

5.2.6.2. Copy information verbatim.

5.2.6.3. When asked, give initials to acknowledge receipt of information or state any questions.

5.3. Control Tower Actions.

5.3.1. The control tower discontinues takeoffs and landings in sufficient time to prevent delay to the emergency aircraft or when deemed necessary by competent authority. Aircraft taxi operations may be conducted if the operation does not interfere with responding emergency equipment.

5.4. Ramp/Crash FM Net.

5.4.1. Use the ramp/crash FM nets to communicate with emergency vehicles once they are deployed. Concerned agencies accomplish coordination and relay follow-up data over these nets.

5.5. Emergency Response Vehicles.

5.5.1. After emergency response vehicles are alerted to standby positions, tower clearance is required before entering the movement area unless a crash or fire is evident/imminent.

5.6. Release Of Emergency Vehicles.

5.6.1. The senior fire official present is the final authority on termination of the emergency and when fire and crash equipment may be released. The senior fire official present shall notify Tower of emergency termination.

5.7. Runway Status During Emergencies.

5.7.1. Suspend normal operations when an emergency aircraft lands, crashes, or is disabled on the runway. Flight operations may continue after an emergency landing when the aircraft and responding vehicles are off the runway and such operations have been authorized by the Chief, Airfield Management or designated representative.

5.8. Airfield Management Responsibilities.

5.8.1. Base Operations, in addition to activating the secondary crash phone, performs a runway check after each emergency landing when there is a possibility of FOD or debris on the runway. This responsibility may be delegated to the Supervisor of Flying, Fire Department, or transient alert in the interest of flying safety when Base Operations' manning does not permit immediate response.

5.9. Supervisor Of Flying Responsibilities (SOF).

5.9.1. The Supervisor of Flying:

5.9.2. Normally performs SOF duties in the tower. If not in the tower, proceeds to the tower or to the appropriate runway, as necessary, and monitors all emergency or potential emergency situations.

5.9.3. Provides technical assistance (when requested) or contacts the appropriate flying organization (time permitting). Trained Operations Duty Officers (ODOs) will be available in each actively flying squadron.

5.9.4. Makes the determination to recover aircraft on a lakebed runway or to divert to an alternate airport, as appropriate. After SOF coordinates this information with tower, tower personnel transmit appropriate instructions to the aircraft.

5.9.5. When advice is extremely technical or the SOF feels relay of information by a controller could cause an unacceptable delay, the SOF shall coordinate with the Tower Watch Supervisor before making a transmission to the affected aircraft on any air traffic control frequency. Instructions shall be limited to preventing a mishap.

5.10. Crash Alarm System Checks.

5.10.1. Primary crash phone. The control tower checks the crash phone daily between 0800L and 0815L. All receiving agencies will wait until queried by the control tower. When individually queried, respond by indicating the reception quality of your circuit followed by your operating initials and hang up. Report circuit malfunctions to 95th Communications Squadron Maintenance Control (ext 73444) and control tower (ext 72049).

5.10.2. Secondary crash phone. Base Operations checks the secondary crash phone immediately after the primary check. Procedures are identical to those used during the primary crash phone check.

5.10.3. Alternate Secondary Crash Phone. Command Post will check the system on first duty day of the month. Testing will be immediately after the Secondary Crash Phone is tested. Procedures are identical to the Secondary Crash Phone.

5.11. Investigating Emergency Locator Transmitter (ELT) Signals.

5.11.1. Tower notifies SPORT, TRACON, and Base Operations when an ELT signal is received/terminated.

5.11.2. Base Operations (when closed, Command Post assumes responsibility) will activate their notification checklist to ascertain if the ELT is originating from the airfield and:

5.11.2.1. Notify 95CS Job Control (7-3444, 24 hour operation) and state "There is a radio frequency interference with Emergency Locator Transmitters." Job Control will contact Frequency Management, who will locate the ELT. If no one is available at location to deactivate the ELT, Frequency Management will contact Base Operations who will recall the appropriate individual to assist in deactivating the ELT. Upon termination of the ELT, Frequency Management will contact Job Control and Base Operations.

5.11.2.2. Recall the appropriate individual to assist in deactivating the ELT if no one is available at the determined location.

5.11.2.3. Notify Life Support during duty hours (7-5467/5396/5056) or standby personnel after duty hours.

5.11.2.3.1. Life Support will go through the entire shop trying to locate the ELT. If not located, contact Base Operations. Life Support technician will stay at building 1398 until they receive confirmation the ELT has been located and terminated. If the ELT is located in the shop, turn it off immediately. Report termination of the ELT to Base Operations.

5.11.2.4. Notify MOC.

5.11.2.4.1. MOC will contact the Survival Equipment Shop, Egress Shop, and Line Trucks. Each contact will check their respective shops for the ELT. Upon completion of check, each shop will call MOC with a found/not-found/turned-off report. MOC will then contact Base Operations and report findings.

5.11.2.5. Contact all organizations involved when the ELT has been terminated.

5.11.3. Planned ELT/Survival Radio Tests. Before keying survival radios on frequencies 243.0 or 121.5 Mhz for a test, lecture or demonstration, the responsible agency advises Base Operations when the event starts and ends, and the location where the test is held. The test device will not be keyed for more than three audible sweeps. ELT testing is only authorized during the first 5 minutes of each hour.

5.12. Unauthorized Aircraft Movement/Hijack Procedures.

5.12.1. Upon notification from a credible source that a hijack/theft is in progress or upon suspecting that a hijack/theft is in progress, Edwards tower will attempt to contact the suspect aircraft. If acknowledgment is received, tower will confirm the operation with Base Operations (transients) or CONFORM (base assigned).

5.12.2. If acknowledgment is not received within 15 seconds, tower shall:

5.12.2.1. Activate the primary crash phone and state:

5.12.2.1.1. "OPERATION HAVE LOAD in progress."

5.12.2.1.2. Call sign/tail number (if known).

5.12.2.1.3. Type aircraft.

5.12.2.1.4. Aircraft position.

5.12.2.1.5. Direction of flight/movement.

5.12.2.1.6. Runway in use.

5.12.2.1.7. Any other known information.

5.12.2.2. On both FM nets, makes a blanket broadcast to include the phrase "OPERATION HAVE LOAD in progress" and give all known information (see note).

5.12.2.3. On all tower frequencies, including 121.5 and 243.0, make a blanket broadcast, "Attention all aircraft, OPERATION HAVE LOAD in progress, all aircraft on the ground at Edwards, hold your position" (see note).

Note: Transmissions on 121.5 and 243.0 are not required during an OPERATION HAVE LOAD exercise.

- 5.12.2.4. Notify SPORT and TRACON Watch Supervisors of the situation.
- 5.12.2.5. Take action as directed by the on-scene commander/airfield manager.
- 5.12.2.6. Refer all requests for information and any updates received to the on-scene commander.

5.13. Aircraft Bomb Threats.

5.13.1. When information is received from any source that a bomb is on, in, or near an aircraft, Edwards tower shall:

- 5.13.1.1. Activate the primary crash phone and relay all known information.
- 5.13.1.2. Handle the aircraft as an emergency.
- 5.13.1.3. Request the pilot's desires and intentions, if contact is established.

Note: Edwards tower shall notify Edwards Command Post any time a K-9 detection team or EOD team is requested by an aircraft.

- 5.13.1.4. Relay any bomb threats to TRACON if the advisory did not come from them.

Note: An FAA Explosive Expert can be contacted by calling the FAA Operations Center ((202)-863-5100, Defense Switched Network (DSN) 851-1180).

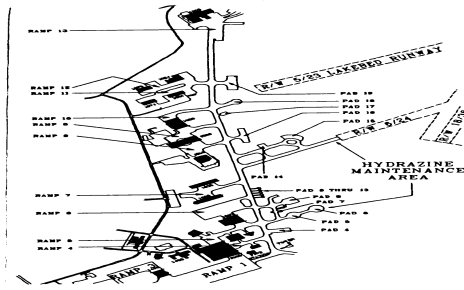
5.13.2. The tower directs the aircraft to the east hot gun area via the runway or the least congested route unless otherwise directed by the on-scene commander and airfield manager or requested by the pilot.

5.13.3. When information is received from any source that a bomb is on, in, or near an aircraft and Edwards tower is not in contact with the aircraft, the tower shall:

- 5.13.3.1. Activate the primary crash phone and give all known information.
- 5.13.3.2. Advise TRACON Watch Supervisor and give all known information, if the aircraft is inbound to Edwards and the initial threat advisory did not come from TRACON.

5.14. HYDRAZINE LEAK. (Fig 5-1).

Figure 5.1. Hydrazine Maintenance Areas.



5.14.1. Upon notification from a competent authority that an aircraft has or possibly has a hydrazine leak, the tower shall:

5.14.1.1. Activate the primary crash phone and give all known information.

5.14.1.2. Advise all concerned of the surface winds.

5.14.1.3. Whenever possible, provide maximum assistance to pilot or On Scene Commander requests.

5.14.2. An F-16 declaring the EPU has been activated on a normal test mission (e.g. airstart familiarization) or requires a sniffer, does not constitute an emergency. However, tower performs actions as stated above except crash phone notification. The aircraft will be directed to taxi to the nearest hydrazine area located in the Rwy 4/22 hammerheads. Aircraft parked on the ramp areas will be towed to the nearest Hydrazine Maintenance Area. The Hydrazine Maintenance Areas are Pad 6 and Taxiway Delta.

5.14.3. If the pilot does declare an emergency and has stated he has activated the EPU, this information should be passed over the crash phone.

Chapter 6

AIRFIELD MANAGEMENT

6.1. Airfield Manager Area Of Control.

- 6.1.1. The airfield manager (412 OSS/OSAM) or authorized representative exercises control over landing surfaces and:
- 6.1.2. Determines when landing surfaces are hazardous to flight operations.
- 6.1.3. Informs Edwards Tower of usable landing surfaces. Provides information to Edwards tower and SOF specifying which closed lakebed runways would be best if required for emergency landings.
- 6.1.4. Notifies Current Operations (412 OSS/OSCS) and control tower of lakebed status.

6.2. Runway Maintenance, Hard Surface And Lakebeds.

- 6.2.1. 412 OSS/OSAM issues advisories to tower and 412 OSS/OSCS on the condition of the hard surface and lakebed runways whenever inspections are completed or the operational status changes.
- 6.2.2. 412 OSS/OSAM ensures work crews are made aware that restricted low approaches may be conducted to the runway on which maintenance is being performed.

6.3. Daily Check Of Main Runway 4/22.

- 6.3.1. 412 OSS/OSAM will conduct an airfield check within one (1) hour of official sunrise or prior to the first aircraft take-off, whichever is earlier. In the event the airfield is closed due to holidays, etc., the airfield check will be accomplished prior to the airfield being opened. The Transient Alert Section provides personnel to do runway checks on an as needed basis.
- 6.3.2. Personnel must receive clearance from Edwards Ground Control (390.1, 121.8 or ramp FM net) before entry onto runway.
- 6.3.3. If Transient Alert does not have a radio equipped vehicle available to perform runway inspections, use one of the Airfield Management radio equipped vehicles.
- 6.3.4. Base Operations advises the control tower of runway status, to include all lakebed runways immediately after completion of the airfield check. Base Operations advises the weather station of runway opening time and active runway in the event the airfield was closed due to a holiday, etc..

6.4. Closing And Reopening Runways.

- 6.4.1. The Airfield Manager or authorized representative directs the opening and closing of runways due to tests, maintenance, debris, or inspections.

6.5. Runway Surface Condition (RSC).

- 6.5.1. 412 OSS/OSAM is responsible for determining the RSC whenever weather conditions that could affect aircraft braking action (e.g. standing water, slush, ice, or snow). Report the RSC to Weather and Edwards control tower. Tower will include this information on ATIS. Advise 412 OSS/OSW and Maintenance Operations Center if ramp areas have standing water, slush, ice, or snow as these can create engine induction, icing, and FOD conditions.

6.6. Light Aircraft Alternate Landing Area.

6.6.1. Taxiway C (East taxiway) may be used as an alternate landing area for conventional aircraft, 12,500 pounds or less maximum gross takeoff weight, during excessive wind periods when the cross-wind is too great for the main runway and when a lakebed runway cannot be used.

6.6.2. Anytime recovery of a light aircraft is expected on the alternate landing area, the following procedures apply:

6.6.2.1. Tower:

6.6.2.1.1. Advise Base Operations.

6.6.2.1.2. Terminate taxi operations on Taxiway C (east taxiway).

6.6.2.1.3. Terminate radio equipped vehicle operations.

6.6.2.2. Base Operations:

6.6.2.2.1. Dispatches vehicles to control taxiway access.

6.6.2.2.2. Ensures no vehicles or personnel are on taxiway.

6.6.2.2.3. Ensures vehicle access is blocked.

6.6.2.2.4. Inform tower when taxiway is ready for alternate runway use.

6.6.3. Tower informs Base Operations when use of the alternate landing area is no longer required.

6.7. Overdue Aircraft.

6.7.1. When notified by 412 OSS/OSCS that an aircraft has exceeded its estimated time of arrival (ETA) by 30 minutes, Base Operations Flight Data personnel takes the following actions:

6.7.2. Start Overdue Aircraft Search and Rescue checklist which includes, but is not limited to:

6.7.2.1. Query tower to verify if aircraft has landed or tower has radio communications with the aircraft.

6.7.2.2. Query SPORT to verify if SPORT has radio communications with the aircraft.

6.7.2.3. Query TRACON if they have or have had any recent contact with the aircraft.

6.7.2.4. Request MOC to coordinate a ramp check.

6.7.2.5. Advise Flight Service Station (FSS) of overdue aircraft and request they check all bases in the area.

6.7.2.6. Notify the Airfield Manager (Who notifies up the chain of command to 412 OG/CC).

6.7.2.7. Advise Flying Safety of overdue aircraft.

6.7.2.8. Advise Command Post.

6.7.3. Refer to AFI 13-202, Overdue Aircraft, and complete required actions.

6.8. Edwards Movement Area.

6.8.1. Edwards movement area is the area, paved and unpaved, within 100 feet of Rwy 4/22, north and south base runways, and the entire lakebed complex (excluding Presidential viewing stand). Specific tower approval is required for all aircraft and vehicles prior to entry into these areas.

6.9. Vehicle Operations.

6.9.1. 412 OSS/OSAM is responsible for authorization of vehicles and personnel on the airfield. Organizational commanders required to operate vehicles on the airdrome will ensure their vehicle operators understand the provisions of AFFTCI 10-2, *Control of Vehicles on the Airfield*.

6.9.2. Only two-way radio equipped vehicles are permitted to operate on the runways or movement area. Vehicle operators shall contact Edwards ground control for permission to enter the movement area and monitor the radio frequency at all times while on the movement area. When tower is closed, CONFORM authorizes vehicles on and off movement area. Tower/CONFORM are not responsible for vehicles outside the movement area.

6.9.3. A two-way radio equipped vehicle may escort non-equipped vehicles within the movement area. Non-radio equipped vehicles will not operate within the movement area unescorted.

6.9.4. When necessary, tower recalls all vehicles and personnel from the movement areas. When told to depart the movement area, all vehicles and personnel will depart by the most expeditious route. During lakebed operations, vehicles will depart the lakebed using the nearest route that does not cross the lakebed or area to be vacated.

6.9.5. All runway/movement area intrusions will be reported to Base Operations.

Chapter 7

OPERATIONS CENTER (CURRENT OPERATIONS/COMMAND POST)

7.1. General.

7.1.1. This chapter outlines Operations Center functions in supporting AFFTC, other government agencies, contractor flying agencies, and command and control actions at Edwards AFB.

7.2. Operations Center.

7.2.1. This consists of Current Operations (412OSS/OSCS) and Command Post (95 ABW/CP) for centralized command and control in coordinating flying activities and handling emergency actions on a real time basis.

7.3. Operations Center Procedures.

7.3.1. Current Operations will:

7.3.1.1. Coordinate, clear, and monitor all local AFFTC, government agencies, and contractor aircraft on a real time basis as shown on the daily flying schedule. Command Post acquires this function when Current Operations/Scheduling closes.

7.3.1.2. Monitor the maintenance status of AFFTC aircraft, including aircraft on cross-country missions.

Note: MOC maintains the status of AFFTC aircraft. Any inquiries should be directed to MOC.

7.3.1.3. Coordinate scheduled AFFTC resource requests for all ground and flight test support and operational flying outlined in AFFTCR 55-15.

7.3.1.4. Flight-follow AFFTC, government agencies, contractor aircraft, and AFFTC aircraft which file a DD Form 175 going cross-country.

7.3.1.5. Maintain status of navigational aids, runways, (including lakebeds) which could affect flight operations.

7.3.1.6. Advise 95th Security Police Squadron to close selected base roads when it is determined to be in the interest of safety IAW AFFTCR 55-15.

7.3.1.7. Inform 412 OSS/OSWR (Weather Rawinsonde Section) of balloon requirements not on the daily flying schedule.

7.3.1.8. Provide a release schedule of airspace to the R-2508 Central Coordinating Facility at the end of the local flying day.

7.3.2. Command Post will:

7.3.2.1. Act as the central coordination agency for nonduty hours' flying and AFFTC focal point and communications link for the AFFTC Commander to manage AFFTC resources.

7.3.2.2. Know the location of the AFFTC Commander and key staff personnel, supervisor of flying, and maintain a means of contact for/with the safety duty officer, public affairs, Red Cross and Chaplain during duty and non-duty hours.

7.3.2.3. Report aircraft incident/accidents through OPREP-3 reporting procedures as outlined in AF Manual 10-206, Reports of Significant Events/ Incidents.

7.3.2.4. Disseminate weather warnings/advisories to required agencies as outlined in AFFTC OPlan 15-1, *Weather Support Plan*.

7.3.2.5. Flight follow aircraft on cross country missions.

7.3.3. CONFORM will pass the maintenance status code number and type of maintenance discrepancies to the Maintenance Operations Center (MOC). Report maintenance status as one of the following:

<u>Code</u> <u>Numbering</u>	<u>Meaning</u>
1	No maintenance discrepancies
2	Minor maintenance. Aircraft is flyable
3	Major maintenance. Aircraft is grounded

Chapter 8

PRECISION IMPACT RANGE AREA (PIRA) AIR FORCE RESEARCH LABORATORY (AFRL)

8.1. General.

8.1.1. This chapter describes ground control procedures for the PIRA. It applies to all range personnel and user organizations from AFFTC, other government agencies, contractors, and others who use the facilities and equipment.

8.2. Definitions.

8.2.1. For a full definition of the PIRA, Alpha Corridor, DAGRAG, and SPORT, see AFFTCI 11-1.

8.2.2. Range Classes.

8.2.2.1. Class A. Range is manned, has scoring capability from the ground, and has a Range Control Officer (RCO) on the ground who controls aircraft using the range.

8.2.2.2. Class B. Range is either manned or unmanned and has scoring capability from the ground, but does not have an RCO on the ground to control aircraft using the range.

8.2.2.3. Class C. Range is unmanned with no scoring or aircraft control capabilities from the ground.

8.2.3. Range Safety Officer (RSO). The supervisor or acting supervisor of the Precision Impact Range Management Section who is physically located in the Range Control Tower during operations. The RSO is an advisor to the RCO and interfaces between the RCO and all range personnel.

8.2.4. RCO. For Class A range operations, a qualified RCO will be provided to control air-to-ground operations. The RCO is the final authority for safe airborne range operations and is required when Class A range operations below 300' AGL are planned.

8.2.5. DOWNFALL. The radio call sign for the Master Range Control Station (Bldg 9505) located in the north central part of the PIRA. Between 0700 and 1530 Monday-Friday, all surface vehicles must obtain prior approval from DOWNFALL for entry into the PIRA.

8.2.6. Live Ordnance. Any munitions which contains explosive fillers capable of producing a high order detonation. Live ordnance will not be used on the PIRA.

8.2.7. Foul Line Road. On the west range, a hard surface roadway extending north and south from North Flank to South Flank towers, immediately west of DAGRAG. Strafe targets are located 1,600 feet from Foul Line Road. On the East Range, the road runs east-west and is immediately south of the strafe target. Strafing passes on DAGRAG are done on a west to east heading and south to north on the East Range. All strafing ends at or prior to crossing Foul Line Road.

8.2.8. Hot Run. An intent to release or fire an object from the mission aircraft including laser operations (e.g. "Cleared to arm and release/cleared to Lase.") When unable to issue clearance, SPORT will inform the test aircraft to "Continue" the approach to a position where a clearance can be issued or the test aircraft will be instructed to abort the hot pass and a reason given for the abort.

8.2.9. Cold/Dry Run. A simulated weapons delivery in which firing or release of an object is not intended. (e.g. "Simulate cleared to arm and release/cleared to Lase.")

8.2.10. Hung Ordnance. Loaded ordnance which has not been released although a release was attempted.

8.3. PIRA Procedures (General).

8.3.1. DOWNFALL is the focal point for all ground activities involving the PIRA. During PIRA operations, SPORT, DOWNFALL, or East Range Control monitors the assigned mission frequency as required. DOWNFALL maintains a log of all personnel entering and exiting the PIRA and ensures personnel cleared on the range are equipped with two-way radio communications for contact with DOWNFALL. DOWNFALL will provide escorts as necessary.

8.3.2. Closure of Mercury Blvd.:

8.3.2.1. In advance of the mission when it is known or suspected that an unnecessary hazard would be created on Mercury Blvd., test directors, test conductors, or range control officers in support of the mission, will take action to schedule the closure of Mercury Blvd. In the absence of prior notification of the projects' intent to close Mercury Blvd., SPORT may choose to close the boulevard prior to mission start. Mercury Blvd. should be closed when:

8.3.2.1.1. As part of a test scenario, a clearance to arm is required west of Mercury Blvd. and an inadvertent release of the device would result in an impact west of the PIRA, on the lakebed, or Mercury Blvd.

8.3.2.1.2. Doubt exists as to the flight characteristics of the device being dropped (e.g. fuel cells, retarded devices with sequential chute deployments) and impact west of the PIRA is possible.

8.3.2.1.3. A laser hazard would exist on Mercury Blvd. caused by the use of a non-eye safe laser in other than a point track mode.

8.3.2.1.4. Forward fired projectiles, gunfire, rockets, will fly across Mercury Blvd.

8.3.3. During the closure of Mercury Blvd. for PIRA operations, tower will deny eastbound vehicular traffic access to the Santa Fe Trail and restrict all vehicles/personnel from the south lakebed.

8.3.4. DOWNFALL:

8.3.4.1. Notifies SPORT when range conditions change during PIRA operations (movement of vehicles or personnel, etc.).

8.3.4.2. Aborts a Hot Run when circumstances warrant. To abort a hot run, DOWNFALL transmits "Abort, Abort, Abort" on mission frequency.

8.3.4.3. Confers with SPORT when a mission has violated range safety and determines the need to suspend range operations.

8.3.4.4. Notifies AFRL Safety Operations Center on pending supersonic flights over the PIRA, Alpha Corridor, Haystack Butte, and operations on the East Range and PB-6.

8.3.4.5. PIRA RSO maintains a complete range log which includes:

8.3.4.5.1. Details of all range sorties.

8.3.4.5.2. Types and quantities of ordnance expended.

8.3.4.5.3. Reporting dud rates.

8.3.4.5.4. Air and ground safety incidents.

8.3.4.5.5. Maintenance services requested from Civil Engineering (95 CES) and response dates.

8.3.4.6. Maintains listening watch on mission and range VHF frequencies.

8.3.5. SPORT:

8.3.5.1. Computes the weapon footprints, when required, release/fire parameters, and verifies results with another qualified mission controller:

8.3.5.1.1. Determines release point.

8.3.5.1.2. Verifies cleared to arm/release point.

8.3.5.1.3. Verifies expected weapons/device impact areas/targets, etc..

Note: When dropping or firing ordnance or objects with undetermined or unique ballistic characteristics, the project engineer provides SPORT with sufficient data to calculate impact footprints or the data provided by the project to the SRB/Technical Review Board.

8.3.5.2. SPORT will not authorize a mission to arm if an inadvertent release of the device would result in an impact outside the PIRA. The clearance to arm will also ensure a 1 statute mile buffer zone within the confines of the PIRA, should an inadvertent separation occur.

8.3.5.3. If a weapon/device is inadvertently fired/released, accidentally released, or impacts off range for any reason, the SPORT controller immediately notifies the RMCC ODO. The ODO and SPORT will jointly complete any additional up-channel notifications.

8.3.6. Project Engineer.

8.3.6.1. When dropping or firing ordnance or objects with undetermined or unique ballistic characteristics, the project engineer provides SPORT with sufficient data to calculate impact footprints or the data provided by the project to the SRB/Technical Review Board.

8.4. DAGRAG and East Range.

8.4.1. Range Clearance. Contact DOWNFALL (5-5603) for ground entry.

8.4.2. DAGRAG RCO or East Range RSO (Callsign COWBELL):

8.4.2.1. Inspects all target areas to be used prior to mission start for safety hazards and ricochet potentials. Contacts RMCC/ODO and obtains status of other scheduled air/ground operations on PIRA.

8.4.3. The RSO:

8.4.3.1. Advises and assists the DAGRAG RCO as required.

8.4.3.2. Is responsible for all ground personnel within the DAGRAG area. Does not permit personnel to move between towers or enter/leave the range area without authorization from the RSO.

8.4.3.3. Schedules the services of EOD and target clearance. EOD services are scheduled through 412 TW/TS by calling EOD direct (72162/72644) during duty hours and AFFTC Command Post (73040) after duty hours. EOD will monitor VHF radio range net for a specific test/time period, if requested.

8.4.3.4. Conducts visual inspection of all facilities, in particular, the area next to the strafe targets for cleanliness and condition of ground. If maintenance or repair is necessary, the DAGRAG RSO takes proper action.

8.4.3.5. Maintains a complete PIRA range log.

8.4.3.6. When the AFRL Motor Behavior Complex, experimental area 1-36 Pad D, is active, personnel assigned to 1-36 will not be required to obtain permission to enter the East Range to work on Pad D as long as they remain within the 1-36 area.

8.5. PIRA Emergency Procedures.

8.5.1. If an aircraft crash occurs, the RCO/RSO will:

8.5.1.1. Immediately notify SPORT, who notifies Edwards tower to activate the Crash Circuit.

8.5.1.2. Provide SPORT/Edwards tower with the following:

8.5.1.2.1. Aircraft type and call sign.

8.5.1.2.2. Location of crash.

8.5.1.2.3. Condition of aircrew, if known.

8.5.1.2.4. Pilot's organization, if known.

8.5.1.3. Terminate all air activity on PIRA except those associated with search and rescue.

8.5.1.4. Advise Edwards AFB Operations Center and 412TW/TSRO.

8.5.1.5. Provide and direct any rescue efforts by range personnel until relieved by more competent rescue services.

8.5.1.6. Maintain communications watch to provide required assistance.

8.5.2. If a serious ground accident occurs, DOWNFALL will:

8.5.2.1. Notify SPORT who in turn notifies Edwards tower, if required.

8.5.2.2. Define the nature of the accident and requests aid.

8.5.2.3. Describe accident location.

8.5.2.4. Terminate appropriate air activity.

8.5.2.5. Inform the RMCC/ODO and 412 TW/ TSRO.

8.5.3. Missions Involving Flares and Tracer Munitions. AFFTC Scheduling (412 OSS/OSCS) alerts the Fire Department for missions involving the release of flares and cancels the requirement if mission is canceled. DOWNFALL is responsible for reconfirming the alert with the Fire Department (55232 or 55181) 30 minutes before scheduled mission time and for acquiring fire services if required. DOWNFALL also terminates the alert upon the conclusion of operations. If an actual fire occurs and the Fire Department cannot be reached, use the hotline to SPORT who will notify tower. Aerial gunnery involving tracer rounds require the same fire safety procedure.

8.6. Range Control Officer.

8.6.1. A pilot RCO is required in DAGRAG tower or East Range tower when minimum weapons delivery altitudes (AFFTCI 11-1, Table 14-1), require Class A range operations. When a pilot RCO is not required, Class B range operations are conducted under SPORT control using normal PIRA procedures. Exceptions where maneuvering deliveries or laser designated deliveries would create a hazard for personnel in the range, tower must be approved in applicable test plans.

8.6.2. Each unit or CTF conducting Class A range operations will:

8.6.2.1. Appoint highly qualified pilots as RCOs. CTFs or units may use the letter of "Xs" to designate RCOs. It is desired these pilots have previously completed tactical gunnery training or had training as a forward air controller for tactical air-to-ground weapon deliveries. The pilot RCOs will become familiar with the publications and instructions in the RCO book and will have a DAGRAG RCO tour of duty supervised by a qualified RCO.

8.6.2.2. Ensure the RCO is thoroughly familiar with the following directives:

8.6.2.2.1. AFI 13-212, V1, Weapons Ranges.

8.6.2.2.2. Major Command publications/instructions governing tactical fighter weapons delivery procedures.

8.6.2.2.3. AFFTCI 11-1, Aircrew Operations, and AFFTCI 11-2, Ground Agency Operations.

8.6.2.3. Arranges for provision of a qualified RCO for actual or simulated (dry passes) weapons delivery missions when required.

8.6.3. The RCO:

8.6.3.1. Conducts DAGRAG/East Range missions under the provisions of the directives listed above.

8.6.3.2. Is directly responsible for the safety of all DAGRAG operations during tour of duty.

8.6.3.3. Briefs range personnel on scheduled mission.

8.6.3.4. Monitors all aircraft in the pattern with primary concern for aircraft on final.

8.6.3.5. Monitors all passes for dive angle, minimum altitude, fouls, and dangerous passes.

8.6.3.6. Monitors strafe passes closely for flat passes, firing past foul line, lazy pull offs, and improper pattern procedures.

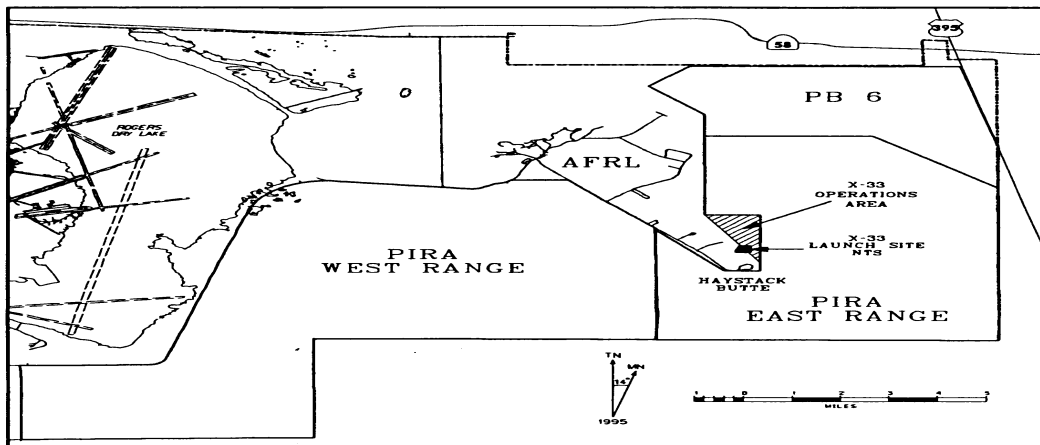
8.6.3.7. Duty location is in DAGRAG or East Range control tower when operations require an RCO.

8.6.4. The Standardization/Evaluation Office shows the appointed RCOs on the Aircrew List.

8.7. AFRL Hazardous/Toxic Testing (Figure 8-1).

8.7.1.8. In the event a condition should arise which could jeopardize the safety of the test (e.g. In-Flight Emergency over PIRA, lost personnel, potential intrusion into exclusion area, etc.) immediate action shall be taken by the agency identifying the problem to notify Rocket Control to secure test. Testing shall not resume until such time as the hazardous condition has terminated.

Figure 8.2. Operations Area.



8.8. X-33 OPERATIONS AREA (Fig 8-2).

8.8.1. The X-33 Operations Area is defined as follows: Beginning at $34^{\circ} 53' 44.9274''$ N lat., $117^{\circ} 37' 56.2115''$ W long., to $34^{\circ} 53' 44.7062''$ N lat., $117^{\circ} 36' 44.7278''$ W long., to $34^{\circ} 52' 01.9315''$ W lat., $117^{\circ} 36' 45.2086''$ W long., to the point of beginning. These coordinates are WGS84 (World Geological Survey 1984) format.

8.8.2. The 5,300' MSL overflight restriction imposed on AFRL is extended to cover the X-33 Operations Area.

8.8.3. Personnel are not required to check in with Downfall when entering and exiting this area.

RICHARD L. ENGEL, Major General, USAF
Commander

Attachment 1

SAMPLE TFC LETTER OF APPOINTMENT

DEPARTMENT OF THE AIR FORCE

412th Test Wing (AFMC)

Edwards Air Force Base, California

MEMORANDUM FOR 418 FLTS/CC

FROM: 412 OG/CC

195 E Popson Ave

Edwards AFB CA 93524-6843

SUBJECT: Letter of Appointment for Combat Talon II Electronic Warfare Deployment

IAW AFFTCI 11-2, para 1.2, Maj (Name & SSN), is appointed Task Force Commander (TFC) for the MC 130H Electronic Warfare deployment to Eglin AFB, effective (date of appointment). Capt (Name & SSN) will serve as Deputy Task Force Commander for the test. Maj (Name of TFC) will comply with the requirements of Chapter 1, AFFTCI 11-2. The TFC is authorized to sign AFMC Form **82/83** for flight authorization during the term of this deployment.

(Signature element of 412 Operations Group Commander)

Attachment 2

PREDEPLOYMENT CHECKLIST

DEPLOYMENT
TIME LINE

DEPARTURE DATE: _____

Due / Complete

90 Days	Project Management, Operations, Engineering and Review Test Effort (Detailed Test Plan, Program Introduction)Maintenance	_____/_____
	Select Team (Overseas Deployment)	_____/_____
	Select Team for sight survey	_____/_____
65 Days	Foreign Travel Clearance (Overseas)	_____/_____
60 Days	Sight survey team visits test operating location.	_____/_____
	Identify TFC, Maintenance and Engineering team chiefs and supply representative.	_____/_____
	Diplomatic clearance (overseas Deployment)	_____/_____
45 Days	Safety Review Board	_____/_____
30 Days	TFC, Project Mgr, Maintenance and Engineering team chiefs meet and finalize a deployment schedule, review support and transportation requirements. Finalize personal uniform or or equipment requirments	_____/_____
21 Days	Deployment Team finalized	_____/_____
	Security, line badge requirements forwarded to operating location	_____/_____
	Host Tenant Agreement finalized	_____/_____
	Prepare Deployment package for 412 TW/CC	_____/_____
	SATO for airline and rental car rqmts	_____/_____
10 Duty Days	Submit Deployment package with TFC designation letter to 412 TW/CC thru 412 OG/CC	_____/_____
	Prepare Deployment trip kit	_____/_____
	Travel Orders Requested	_____/_____
6 Duty Days	TDY Orders ready	_____/_____
5 Duty Days	Final review by TFC, Project Mgr, Maintenance, and Engineering team chiefs	_____/_____
	Security threat check by OSI. (Brief at TFC briefing	_____/_____
3 Duty Days	FC brief to 412 OG/CC	_____/_____
2 Duty Days	FC brief to Deployment Team	_____/_____

Issue personal uniform or equipment required by the test _____/_____
or operating location
Crew list to Ops/Admin for Flight Orders _____/_____

Attachment 3**SITE SURVEY CHECKLIST**

- A3-1. Survey Team Chief. (Name, Rank, Office Symbol, Phone No.)
- A3-2. Survey Team Members. (Name, Rank, Office Symbol, Phone No.)
- A3-3. Date of Survey.
- A3-4. Purpose of Survey.
- A3-5. Name of Site.
- A3-6. Host Representative. (Name, Rank, Office Symbol, Phone No.)
- A3-7. Type of aircraft assigned (Is oil analysis available).
- A3-8. Airfield suitability, runways (length, width, weight bearing capacity), NAVAIDs, Instrument approaches, traffic/overhead pattern altitudes/procedures, alternate airfields, etc.
- A3-9. Capability to support large transport aircraft (C-130, C-141, C-5, C-17, KC-10, C-135, etc.) (Tow bars, ramp space, ATOC for cargo, fleet service, inflight meals, PAX terminal facilities, Customs, Immigration, Agriculture, etc.).
- A3-10. Parking area dimensions. Condition, designated parking plan (Footprint).
- A3-11. Engine run-up areas, tie downs, trim pads (Restrictions).
- A3-12. Hazardous area parking (Flares, Live and forward firing munitions, hydrazine maintenance, etc.). End of Runway inspection areas, Arm/Dearm areas.
- A3-13. Are hangars available for heavy maintenance (footprint, power on floor and wall)?
- A3-14. Airfield restrictions (quiet hours, noise abatement, airfield operating hours, arrival/departure procedures, bird activity, etc.).
- A3-15. Is military base supply able to support our aircraft? Where is the nearest lateral source? Method used to establish local base supply accounts.
- A3-16. Is secure storage available for spare parts, tool boxes, etc.? Is classified storage available (i.e. safes) for classified parts and equipment?
- A3-17. Are trucks, forklifts, k-loaders and drivers, towbars, etc. available?
- A3-18. Do we have a memorandum of agreement or support agreement with host?
- A3-19. What type and amount of POL is available?

Products	Vessel	Tank Truck	Produced/Procured Combined
Jet Fuel:			
JP-4			
JP-5			
JP-8			
Other			
Hydraulic			
100/130			
80/87			
Oil 5306			
Oil Analysis Avail			
Demin Water			
Liquid Oxygen			
Deicing Fluid			
MoGas			
DF2			
Fleet Service			
*Liquid Nitrogen			

A3-20. Where is closest source for Hydrazine servicing and storage? How stored? Fire Department participation

for all hazards.

A3-21. What dental and medical facilities are available?

A3-22. What billeting is available? Distance?

A3-23. What messing facilities are available?

A3-24. What military transportation is available?

A3-25. What aircraft support equipment is available?

Item	Qty	Types	Stock Numbers	Remarks
Air Start Cart				
Tow Bar				
Wheel Chocks				
*Engine Dollies/Trailers				
Air Compressors				
Jacks (Incl capacity)				
Fire Extinguishers				
Aircraft Dollies				
*Aircraft Defuelers/Bowser				
*Aircraft Grounds and Cords				
LOX Convertors, A-2 & 3 Ma-1 & 2 MB- 1ME, MB-2				
LOX Generators (or close commercial source). A-1A, MA-3, MB-1, MB-2				
Aircraft Heaters				
Forklift				
Tug				
Portable Flood Lights				
Deicing Vehicle				
Maintenance Platforms				
Portable Generator				
Portable Air Conditioner				
Portable Jet Engine Test Stands				
Hydraulic Test Stands (Include Press. Cpty)				
Mock-ups (be specific)				
ACFT tires/tubes/brakes				
Tractor/Tow (acft)				
Other: Follow-Me/Supply Expediate Vehicle				
*Nitrogen Cart				
*PT Cart				
*Hydraulic Cart				
*Oil Cart				

*LOX Servicing Cart				
*LANTIRN & ECM POS Uphold/ Download Dollies				

A3-26. What maintenance repair facilities are available?

Function	Yes/ No	Bldg#	Security	Elec Power	A/C Water	Environmental
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Heating Specifications

Comm Nav						
*Electronic Warfare (Access doors must be 54 inch warfare wide 84 inch high)						
A monorail hoist 1500 ft lift capacity						
Inertial Nav						
Avionic AGE						
Auto Pilot						
Instruments						
*Electrics/Battery Shop						
*Weapons Control/ Armament						
Cal Dock						
Metals Proc						
Structural Repair						
Survival Equip						
Machine Shop						
Pneumatics						
Hydraulics						
Environment						
AVTR Sensor Shop						
Non ATE Shop						
Auto Test Stations						
POD Warehouse						
PMEL						
Engine Shop						
AGE Ground Equip						
A/C Electric						
A/C Hydraulic						
Sheet Metal						
A/C Tire Shop						

Welding/Machinery						
Egress						
Tech Admin						
*Fuel Shop/Hydrazine Response & Maintenance						
Corrosion Control						
Tool Crib						
Maint Control						
Maint Operations Center						
Plans & Scheduling						
Materiel Control						
QC/Safety						

A3-27. Is there a munitions build-up area available?

A3-28. Is EOD support available?

A3-29. What kind of MWR facilities are available?

A3-30. What kind of office space is available? (Furniture, typewriters, etc.).

A3-31. Are DSN phones available? (We determine requirements).

A3-32. What are security requirements? (Line badges, access lists, etc.)

A3-33. How will fuel (acft & non POL) be billed?

A3-34. What type of funding document do they require? (IL, MIPR, Project Order, other).

A3-35. Develop total TDY costs, test team composition, etc.

A3-36. Know your "Full" requirements before you go!!!!

Attachment 4**SAMPLE TRIP KIT CONTENTS (C-130 DEPLOYMENT)**

<u>AF FORMS</u>	<u>TITLE</u>	<u>QUANTITY</u>
15	USAF Invoice	
*315	Avfuels Invoice	
457	Hazard Report	
651	Hazardous Air Traffic Report	
1297	Temporary Issue Receipt	
*664	Aircraft Fuels Documentation Log	

<u>AFTO FORMS</u>	<u>TITLE</u>	<u>QUANTITY</u>
151a	Individual C-130 Aircraft Usage Log	
781	AFORM Aircrew/Mission Flight Data Document	

<u>DD FORMS</u>	<u>TITLE</u>	<u>QUANTITY</u>
2131	Passenger Manifest	
175	Military Flight Plan	
175-1	Flight Weather Briefing	
*1801	DoD International Flight Plan	

<u>AFMC FORMS</u>	<u>TITLE</u>	<u>QUANTITY</u>
*82	Flight Authorization	
*83	Local Flight Clearance/Flight Authorization	

<u>MISC FORMS</u>	<u>TITLE</u>	<u>QUANTITY</u>
*AFORMS AFMC (MAR)		
Customs, Immigration, Agriculture		

MISC DOCUMENTS

Policy and procedures letter for rental cars.